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| APPLICATION NO.   | FI   | ILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. CONFIRMATION NO |              |
|---|------|------------|----------------------|-------------------------------------|--------------|
| 09/761,341  | . (  | 01/16/2001 | Serguei Glazko       | 000337 5972                         |              |
| 23696   | 7590 | 03/16/2005 | •                    | EXAMINER                            |              |
|   |      | ated       | TANG, KAREN C        |                                     |              |
| Qualcomm Incorporated Patents Department 5775 Morehouse Drive |      |            |                      | ART UNIT                            | PAPER NUMBER |
| San Diego, CA 92121-1714                                      |      |            |                      | 2151                                |              |

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|  |  |   |   | 74.  |
|--|--|---|---|------|
|  | A  | pplication No.  | Applicant(s)  |      |
|  |  | 9/761,341   | GLAZKO ET AL.   |      |
| Office Action Summar   | y E  | xaminer   | Art Unit  |      |
|  |  | aren C Tang   | 2151  |      |
| The MAILING DATE of this con<br>Period for Reply   | nmunication appear   | rs on the cover sheet with t  | he correspondence address   |      |
| A SHORTENED STATUTORY PERIOD THE MAILING DATE OF THIS COMI  - Extensions of time may be available under the pro- after SIX (6) MONTHS from the mailing date of thi  - If the period for reply specified above, the maxin  - If NO period for reply is specified above, the maxin  - Failure to reply within the set or extended period for Any reply received by the Office later than three mearned patent term adjustment. See 37 CFR 1.70 | MUNICATION. visions of 37 CFR 1.136(a s communication. hirty (30) days, a reply with num statutory period will a por reply will, by statute, cau onths after the mailing dat | ). In no event, however, may a reply on the statutory minimum of thirty (30 pply and will expire SIX (6) MONTHS use the application to become ABAND | be timely filed ) days will be considered timely. from the mailing date of this communication ONED (35 U.S.C. § 133). | i. , |
| Status   |  |   |   |      |
| 1) Responsive to communication(  | s) filed on .  |   |   |      |
| 2a)⊠ This action is <b>FINAL</b> .   |  | tion is non-final.  |   | ,    |
| 3) Since this application is in conclused in accordance with the p   |  |   | • ><  | i    |
| Disposition of Claims  |  |   |   |      |
| 4) ⊠ Claim(s) <u>1-9,11-20,22-30 and 3</u> 4a) Of the above claim(s) 5) □ Claim(s) is/are allowed. 6) ⊠ Claim(s) <u>1-9,11-20,22-30 and 3</u> 7) □ Claim(s) is/are objected 8) □ Claim(s) are subject to r   | is/are withdrawn and a size is/are rejected. to.   | from consideration.   |   |      |
| Application Papers   |  |   |   |      |
| 9)☐ The specification is objected to   | by the Examiner.   |   |   |      |
| 10)⊠ The drawing(s) filed on <u>1/16/01</u>  | is/are: a)🔀 accep  | ted or b) objected to by  | the Examiner.   |      |
| Applicant may not request that any   | objection to the dra   | wing(s) be held in abeyance.  | See 37 CFR 1.85(a).   |      |
| Replacement drawing sheet(s) inc 11) The oath or declaration is objection.   | _  | - · ·   | ·   | I).  |
| Priority under 35 U.S.C. § 119   |  |   |   |      |
| 12) Acknowledgment is made of a calcalcalcalcalcalcalcalcalcalcalcalcalc   | of:<br>fority documents had<br>fority documents had<br>pies of the priority<br>national Bureau (F  | ave been received.<br>ave been received in Appli<br>documents have been rec<br>PCT Rule 17.2(a)).   | cation No eived in this National Stage  |      |
| Attachment(s)  |  |   |   |      |
| <ol> <li>Notice of References Cited (PTO-892)</li> <li>D Notice of Draftsperson's Patent Drawing Rev</li> </ol>  | iou (PTO 048)  | 4) Interview Sumr   | nary (PTO-413)<br>ail Date  |      |
| <ol> <li>Notice of Draftsperson's Patent Drawing Rev</li> <li>Information Disclosure Statement(s) (PTO-14<br/>Paper No(s)/Mail Date <u>4/12/02</u>.</li> </ol>   |  |   | nal Patent Application (PTO-152)  |      |

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#### **DETAILED ACTION**

#### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- I. Claim 1-6, 8-17, 19-27, and 29-32 are rejected under 35 U.S.C. 102(e) as being anticipated by art of record, Jou et al., hereinafter Jou (US 648472).
- 1. Referring to Claim 1 and 23, Jou states that the system receives data transmitted in a plurality of frames refer to Col 6, Line 36 45, Jou also states the system can classify each of the frame refer to Col 3, Line 7 Line 14. Jou specifies the system analyzing the classification of number of successive frames of the received data and providing a metric with respect thereto refer to Col 3, Line 7 25. The system can determine if a frame is a discontinuously transmitted frame.
- 2. Referring to Claim 2, 13, and 24, Jou states that the system consists errorchecking ability for the frames refer to Col 4, Line 18 – 29.

3. Referring to Claim 3, 14, and 25, Jou states that the error checking includes performing a cyclic redundancy check refer to Col 4, Line 18 – 29.

- 4. Referring to Claim 4, 15, and 26, Jou states that the system classifies the frames as good frames, erasure frames or discontinuous frames refer to Col 3, Line 7 14.
- 5. Referring to Claim 5 and 16, Jou states the system includes a filter refer to Col 5, Line 13 18.
- 6. Referring to Claim 6, 17, and 27, Jou states the system assignes a numerical value to each of the frames based on the classification thereof Col 9, Line 25 60.
- 7. Referring to Claim 8, 19, and 29, Jou states the system set a threshold for the output of the filter refer to Col 3, Line 23 30.
- 8. Referring to Claim 9, 20, and 30, Jou states the system outputs an indication of a detection of a discontinuous transmission frame when the filter output exceeds the threshold refer to Col 3, Line 8 30.
- 9. Referring to Claim 10, 21, and 31, Jou states the system reclassifying the frames refer to Col 3, Line 8 30.

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10. Referring to Claim 11, 22, and 32, Jou states the system reclassify frame to discontinuous if the frame was classified as erasure and the output of the filter exceeds the thresholds Col 3, Line 8 - 30.

11. Referring to Claim 12, Jou specifies a communication consists a transmitter which adapts to transmit frames of data, at least some of the frames being discontinuous. The system consists a receiver which adapted to received and classify the transmitted frames. The system also consists a processor and a software to analyze the classification of a number of successive frames of the receiving data and providing a metric with respect thereto and for determining, in response to the metric, if a frame is a discontinuously transmitted frames.

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- II. Claim 7, 18, and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Jou (US 648472) in view of Chen et al, hereinafter Chen (US 6335990).

1. Referring to claim 7, 18 and 28, Jou specified that there is a filter associate with the system.

Jou does not expressly disclose what type of filter or the filter equation being used in the system.

Chen states that the filter is associate with the system and also the filter is in the form of Yn = Yn-1 + Xn refer to Figure 9.

At the time of the invention, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Jou with the teaching of Chen. One of ordinary skill in the art would have been motivated to do this because Jou discloses there is a filter associate with the system.

Furthermore, it would be beneficial to use Chen's idea to implement the filter with IIR filter so it can be easily filter the data in the vertical, horizontal, and temporal dimension in a single step, and it also can preserve the sequence of the frames.

## Response to Arguments

- III. Applicant's arguments filed 12/16.04 have been fully considered but they are not persuasive.
- 1. In the remark, the applicant argued that (1) the sited art "Jou" does not shown nor suggested "determining if a frame is a DTX frame, including reclassifying improperly classified erasure frames to be DTX frames". (2) Combination of "Jou" and "Chen" is not obvious.

### 2. Examiner respectfully traverse the argument:

As to Point (1) "Jou" indicates that "determine if a frame is a DTX frame (detector 220, refer to Col 5, Lines 40-67), including reclassifying improperly classified erasure frames to be DTX frames. (refer to Col 3, Lines 8-30, refer to Col 6, Lines 10-35). Reason being, once the system detect the frames was a bad frame/erasure frames, and over the threshold, the system shut down its transmission (which is, the erasure frame/mode is becoming a DTX mode/frame), which act as an "DTX" frame, which shut down the system when the threshold value is exceeded. (2) In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Jou with the teaching of Chen. One of ordinary skill in the art would have been motivated to do this because Jou discloses there is a filter associate with the system. Furthermore, it would be beneficial to use Chen's idea to implement the filter with IIR filter so it can be easily filter the data in the vertical,

horizontal, and temporal dimension in a single step, and it also can preserve the sequence of the frames.

#### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen C Tang whose telephone number is (571)272-3116. The examiner can normally be reached on M-F 7 - 3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571)272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ZARNI MAUNG

PERVISORY PATENT EXAMINER

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